

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT PCT (PCT Article 36 and Rule 70)

REC'D 23 DEC 2004

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| Applicant's or agent's file reference P045416PCT YGR/do | FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416) | |
| International application No. PCT/NL 03/00533 | International filing date (<i>day/month/year</i>) 18.07.2003 | Priority date (<i>day/month/year</i>) 05.09.2002 |
| International Patent Classification (IPC) or both national classification and IPC B65D30/20 | | |
| Applicant SMQ GROUP B.V. et al. | | |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 4 sheets.

3. This report contains indications relating to the following items:

I ☒ Basis of the opinion

II ☐ Priority

III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

IV ☒ Lack of unity of invention

V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

VI ☐ Certain documents cited

VII ☐ Certain defects in the international application

VIII ☐ Certain observations on the international application

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| Date of submission of the demand 05.04.2004 | Date of completion of this report 21.12.2004 |
| Name and mailing address of the international preliminary examining authority: <div style="display: flex; align-items: center;"> <div> European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 </div> </div> | Authorized Officer Piolat, O Telephone No. +49 89 2399-2969 <div style="text-align: right; margin-top: 20px;"> </div> |

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/NL 03/00533**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-15 as originally filed

Claims, Numbers

1-15 filed with telefax on 26.11.2004

Drawings, Sheets

1/4-4/4 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1 (b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY
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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).
- (Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees, the applicant has:

- ☒ restricted the claims.
- ☐ paid additional fees.
- ☐ paid additional fees under protest.
- ☐ neither restricted nor paid additional fees.

2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☒ complied with.
- ☐ not complied with for the following reasons:

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- ☒ all parts.
- ☐ the parts relating to claims Nos. .

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|-------------|------|
| Novelty (N) | Yes: Claims | 1-15 |
| | No: Claims | |
| Inventive step (IS) | Yes: Claims | |
| | No: Claims | 1-15 |
| Industrial applicability (IA) | Yes: Claims | 1-15 |
| | No: Claims | |

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

- 1 Reference is made to the following documents:

D1: GB-A-2117736

D2: US-A-6032818

D3: US-A-5788121

D4: US-A-5988422

- 2 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of independent claim 1 does not involve an inventive step in the sense of Article 33(3) PCT.

The document D2 is regarded as being the closest prior art to the subject-matter of claim 1 and discloses (see column 3, line 15 - column 4, line 19; column 5, lines 22-64; fig. 1-3, 9a-9f) a combination comprising a container (11) and an empty bag (1) that can be unfolded from a flat, empty state into a filled final state; wherein the container has a walled enclosure that defines a container chamber, which walled enclosure comprises a base (29) and a peripheral wall (28) that is upright in the height direction from the base; wherein the bag comprises a first (2), a second (3), and a third (35) sheet for forming, respectively a first, second and third bag wall; wherein the first sheet is joined to the second sheet via the third sheet; wherein, in the flat empty state, the third sheet is folded along a fold line (40); wherein, in the flat empty state, the fold line of the third sheet is between the first and the second sheet; wherein the first sheet of the bag is provided with a first opening (5) for emptying the bag, the first opening being connected to the peripheral wall; wherein the foldable bag in the filled final state has dimensions that essentially correspond to those of the container chamber; whereby the first sheet of the bag is provided with a second opening (6) for filling the bag; the first opening and second opening are fixed to the walled enclosure; the first opening is provided at the base of the container and the second opening is provided at the top of the peripheral wall such that, between the first opening and second opening, the bag is in contact with the peripheral wall over essentially the entire height of the peripheral wall as well that, with the container upright and from the flat, empty state, the bag unfolds from the first opening along the base and from the base into the top of the container chamber.

The subject-matter of claim 1 therefore differs from this known combination in that the bag comprises a fourth sheet for forming a fourth bag wall; wherein the first sheet is joined to the second sheet via said fourth sheet; wherein, in the flat empty state, the fourth sheet is folded along a fold line; wherein, in the flat empty state, the fold line of the fourth sheet is between the first and the second sheet facing the fold line of the third sheet; and wherein said fold lines extend essentially in the height direction of the container.

The problem to be solved by the present invention may therefore be regarded as to provide a combination which is easy to fill for a very high degree, avoiding loss of filling capacity because of folded bag parts.

However, the solution proposed in claim 1 consisting in a bag formed with a fourth sheet, whereby the fold lines of the third and fourth sheets extend essentially in the height direction of the container, has already been employed for the same purpose in similar combination, see document D1 (page 1, line 57 - page 3, line 13; page 6, lines 11-34; fig. 1-12) as well as document D4 (see column 6, lines 3-67; fig. 1-5). It would be obvious to the person skilled in the art, namely when the same result is to be achieved, to apply these features with corresponding effect to a combination according to document D2, thereby arriving at a combination according to claim 1.

The solution proposed in claim 1 of the present application can therefore not be considered as involving an inventive step.

- 3 The same reasoning applies to the subject-matter of independent claim 14, which is not considering as involving an inventive step either (Article 33(3) PCT).
- 4 The dependent claims 2-13 and 15 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step, the reasons being as follows:

The additional features defined in these claims are either known from the available prior art or they are considered as being within the scope of the customary practice followed by persons skilled in the art, especially as the advantages thus achieved can be readily contemplated in advance see for instance documents D2 for claims 2, 7 and 15; D3 (see fig. 1-4) or D4 for claims 3-6; D1 for claims 8-13.

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/NL 03/00533

5 In order to be complete the following remarks are also made:

5.1 When drafting claim 4, whose subject-matter corresponds to the subject-matter of former claim 4, some features have been deleted, which extends the scope of that claim beyond the content of the application as filed, contrary to Article 19(2) PCT.

5.2 The last feature of claim 1 "with the container upright and from the flat, empty state, the bag unfolds from the first opening along the base and from the base into the top of the container" relate to a method of using the combination rather than clearly defining the combination in terms of its technical features. The intended limitations are therefore not clear from this claim, contrary to the requirements of Article 6 PCT.

5.3 The term "optionally" used in the expression "and optionally fourth sheet" in claim 10 should have been deleted since said fourth sheet is part of the subject-matter defined in claim 1 (Article 6 PCT).

5.4 Claim 14 refers to the first and second fixing, which wordings do not appear in claim 1; thereby leaving the reader in doubt as to the technical features to which these expressions refer (Article 6 PCT).

5.5 To meet the requirements of Rule 5.1(a)(ii) PCT, the documents D1 and D2 should have been identified in the description and the relevant background art disclosed therein should have been briefly discussed.

Additionally, the reference to the document DE-U 931620 in the description on page 2 seems to be erroneous.

5.6 The description is not in conformity with the amended claims as required by Rule 5.1(a)(iii) PCT.

New claims

1. Combination comprising a container (50, 90) and an empty bag (1, 100) that can be unfolded from a flat, empty state into a filled final state;
- 5 wherein the container (5, 90) has a walled enclosure (91, 92, 93) that defines a container chamber (94), which walled enclosure comprises a base (91) and a peripheral wall (92) that is upright in the height direction from the base (91); wherein the bag (1, 100) comprises a first (10), a second (20), a third (30) and a fourth (40) sheet for forming, respectively, a first, second third and fourth bag wall;
- 10 wherein the first sheet (10) is joined to the second sheet (20) via the third (30) and the fourth (40) sheet;
- wherein, in the flat empty state, the third (30) and the fourth (40) sheet are each folded along a fold line (31, 41);
- wherein, in the flat, empty state, the fold line (31) of the third sheet (30) and the fold
- 15 line (41) of the fourth sheet are between the first (10) and the second (20) sheet facing one another;
- wherein the fold lines (31, 41) extend essentially in the height direction of the container;
- wherein the first sheet (10) of the bag (1, 100) is provided with a first opening (16) for
- 20 emptying the bag, the first opening (6) being connected to the peripheral wall (92); wherein the foldable bag in the filled final state has dimensions that essentially correspond to those of the container chamber (94); characterized
- in that the first sheet (10) of the bag (1, 100) is provided with a second opening (15,
- 25 105) for filling the bag,
- in that the first opening (16) and second opening (15, 105) are fixed to the walled enclosure (91, 92, 93);
- in that the first opening (16) is provided at the base of the container (50, 90) and the second opening (15, 105) is provided at the top of the peripheral wall (92) such that,
- 30 between the first opening (16) and second opening (15, 105), the bag (1, 100) is in contact with the peripheral wall (92) over essentially the entire height of the peripheral wall (92) as well that, with the container upright and from the flat, empty state, the bag (1, 100) unfolds from the first opening (16) along the base and from the base into the

top of the container chamber (94).

2. Combination according to Claim 1, wherein the container chamber (94) is essentially block-shaped or cylindrical.

3. Combination according to Claim 2, wherein the first (10) and second (20) sheet each have two mutually parallel side edges (12, 14; 22, 24) running in the height direction; wherein, on the one hand, the first sheet (10) is joined together with the third (30) and fourth (40) sheet and, on the other hand, the second sheet (20) is joined together with the third (30) and fourth (40) sheet at the tops and bottoms thereof along an oblique seal (61), viewed with respect to the side edges, such that in the completely filled state the seals (61) essentially determine the diagonals of the bottom surface and the top surface of the bag (1, 100).

4. Combination according to Claim 3, wherein a top rib/axis (63) runs between the outward-pointing ends of the top oblique seals (61) of the first sheet (10); and wherein a bottom rib/axis (64) runs between the outward-pointing ends of the bottom oblique seals (61) of the first sheet (10).

5. Combination according to Claim 4, wherein the distance from, on the one hand, the second opening (15, 105) to, on the other hand, the top rib/axis (63) is at most 25% of the depth of the container chamber (94), viewed horizontally and transversely to the top rib/axis (63), wherein said distance is preferably at most 15%, such as at most 10%, of said depth.

6. Combination according to one of Claims 4 – 5, wherein the distance from, on the one hand, the first opening (16) to, on the other hand, the bottom rib/axis (64) is at most 25% of the depth of the container chamber (94), viewed horizontally and transversely to the bottom rib/axis (64), wherein said distance is preferably at most 15%, such as at most 10%, of said

depth.

- 5 7. Combination according to one of the preceding claims, wherein the walled enclosure (91, 92, 93) of the container (5, 90) has a ceiling (93) that delimits the container chamber (94) from above and wherein a portion of the bag (1, 100) facing upwards in the filled final state is provided with the second opening (15, 105).
- 10 8. Combination according to one of the preceding claims, wherein the fold line (31) of the third sheet (30) in the initial state extends underneath the first opening (16) to form a channel (17) between the first and second sheet (10, 20) past the first opening (16).
- 15 9. Combination according to claim 8, wherein the fold line (41) of the fourth sheet (40) in the initial state extends underneath the first opening (16) to form a channel (17) between the first and second sheet (10, 20) past the first opening (16).
- 20 10. Combination according to claim 8 or 9, characterised in that the first opening (16) has been made close to the longitudinal centre line of the first sheet (10), wherein the fold lines in the third and optionally fourth sheet (30, 40) in the initial state extend essentially parallel to and close to said longitudinal centre line.
- 25 11. Combination according to claim 8 or 9, characterised in that the distance between the fold line in, respectively, the third and fourth sheet (30, 40) in the initial state is less than 90%, preferably less than 80%, of the diameter of the opening (15).
- 30 12. Combination according to one of claims 8-11, wherein, viewed transversely to the fold line (31) of the third sheet (30), the greatest distance to the periphery of the opening of the first opening (16) is at least 5%, preferably at least 15%, such as at least 20%, of the maximum passage width of said opening, viewed transversely to the fold line (31) of the third sheet (30).
13. Combination according to one of claims 8-12, wherein, viewed transversely to

4

the fold line (41) of the fourth sheet (40), the greatest distance to the periphery of the first opening (16) is at least 5%, preferably at least 15%, such as at least 20%, of the maximum passage width of said opening, viewed transversely to the fold line (44) of the fourth sheet (40).

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14. Method for the use of a combination according to one of the preceding claims, wherein the flat empty bag is first fixed by the first and second fixing against the walled enclosure of the container chamber and only then is the bag filled with a filling via the second opening (15, 105).

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15. Method for the use of a combination according to one of claims 1-13 or method according to claim 14, wherein the bag is emptied, or at least the final portion of the bag is emptied, via the first opening (16).